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Trout Unlimited et al

**IN THE UNITED STATES DISTRICT COURT
 FOR THE NORTHERN DISTRICT OF CALIFORNIA**

STATE OF CALIFORNIA, et al.,

Plaintiffs,

v.

JANE NISHIDA, et al.,

Defendants.

v.

STATE OF GEORGIA, et al.,

Intervenor- Defendants

Case No. 3:20-cv-03005-RS

**UNOPPOSED MOTION FOR LEAVE
 TO FILE AMICUS CURIAE BRIEF OF
 TROUT UNLIMITED, IZAAK
 WALTON LEAGUE OF AMERICA,
 THEODORE ROOSEVELT
 CONSERVATION PARTNERSHIP,
 AND H. DALE HALL, FORMER
 DIRECTOR, U.S. FISH AND WILDLIFE
 SERVICE AND FORMER CEO, DUCKS
 UNLIMITED, IN SUPPORT OF
 PLAINTIFFS' MOTION FOR
 SUMMARY JUDGMENT**

Hearing: June 3, 2021, 1:30 p.m.
 Judge: Hon. Richard Seeborg

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INTERESTS OF AMICI CURIAE¹

Protecting our Nations’ waters is of critical importance to Sportsmen and Sportswomen Amici, Trout Unlimited (TU), Izaak Walton League of America, Theodore Roosevelt Conservation Partnership (TRCP), and H. Dale Hall, Former Director, U.S. Fish and Wildlife Service (FWS) and Former CEO, Ducks Unlimited. Healthy waters support healthy fish and wildlife and help to support and sustain water-based businesses, including hunting, fishing, outdoor recreation and the recreational economy. As of 2014, an estimated 47 million people hunted and fished in the United States, and delivered an astonishing \$200 billion to the country’s economy, along with 1.5 million jobs.² So, when streams are polluted or wetlands drained, it directly affects Sportsmen and Sportswomen Amici and America’s hunting and fishing economy. Since enactment, Amici have relied upon the Clean Water Act (“CWA” or “Act”), 33 U.S.C. §§ 1251 *et seq.*, with its long-standing, science-based definition of “Waters of the United States” to ensure protections for the many streams and wetlands that function to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” – the central objective of the CWA. 33 U.S.C. § 1251. The Act also sets as an explicit national goal the achievement of “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water....” 33 U.S.C. § 1251(a)(2). Few other laws so clearly place the interests of hunters and anglers at their core. Amici vigorously oppose the 2020 Waters of the United States Final Rule – 85 Fed. Reg. 22,250 (April 21, 2020) because it drastically and arbitrarily departs from law, longstanding CWA policy, and science.

¹ No party’s counsel authored this brief in whole or in part, and no person contributed money intended to fund the preparation or submission of this brief.

² National Wildlife Federation & American Rivers Comments on the Replacement Rule (NWF & AR Comments) (AR 6880), Att. 10 (NWF 2014 Clean Water Rule Comments), at 104.

SUMMARY OF ARGUMENT

The 2020 Rule eliminates all permit requirements for about half of the Nation's stream miles and tens of millions of its remaining wetland acres, and cripples the effectiveness of the Act's remaining permit and water-quality protection framework to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. If allowed to stand, the 2020 Rule would result in increased pollution and destruction of streams, rivers, lakes, wetlands, and estuaries upon which Amici depend for fish and wildlife-related outdoor-recreation, restoration work, employment, and businesses.

Amici demonstrate that the 2020 Rule is arbitrary and capricious because: (1) the Rule disregards the primary statutory objective and goals of the CWA, the established science, and record evidence of environmental and economic impacts; (2) the Rule undermines the CWA's permit programs and will have devastating effects on the states' and tribes' ability to meet the water quality standards they set for navigable waters; and, (3) the Rule disregards the reliance interests of millions of people and businesses on longstanding clean water protections. Amici present below what they do every day – we discuss the science of rivers, wetlands and drinking water of the American public – the Waters of the United States. We show the science ignored by the Agencies and the sheer irrationality of the 2020 Rule in the face of the Act's permit framework and implementation in watersheds across the Nation.

ARGUMENT

I. The 2020 Rule arbitrarily eliminates all permit requirements for about half the Nation's stream miles and tens of millions of wetland acres, making it impossible to achieve the Act's primary objective to restore and maintain the chemical, physical, and biological integrity of U.S. waters.

A. The 2020 Rule excludes CWA permit review for about half of U.S. stream miles.

Streams that do not flow year-round, but instead flow seasonally and intermittently or ephemerally (in response to precipitation events), are the backbone of every watershed, comprising on average 60-

80% of their total length of streams.³ The 2020 Rule categorically removes CWA jurisdiction for all ephemeral streams, which the Agencies originally pegged at 18% of stream miles nationally and Trout Unlimited (TU) scientists calculated for the record at more than 50% of stream miles.⁴ In addition, the 2020 Rule excludes intermittent (seasonal) streams that do not contribute flow “in a typical year” to a navigable water, and even eliminates protection for some perennial (year-round) streams. The Agencies did not quantify how many streams either of these exclusions would encompass. *See* U.S. EPA & Dep’t of the Army, *Economic Analysis for the Navigable Waters Protection Rule: Definition of “Waters of the United States”* 10-11, 22-23 (Jan. 22, 2020) (“Final EA”) (AR 11572).

TU scientists’ current peer-reviewed and published refinement of their analysis reinforces the fundamental accuracy of their contribution to the administrative record, conservatively estimating that approximately 4.9 million stream miles, 48% of stream channels by length in the conterminous U.S., will no longer benefit from CWA protection under the 2020 Rule.⁵ TU scientists conducted this analysis because the government failed to conduct its own analysis of the effect of its own 2020 Rule. These percentages are much higher in certain regions and watersheds. For example, in the

³ *See* Dr. S. Mažeika Patricio Sulliván Decl., *California v. Wheeler*, 3:20-cv-00-3005-RS (N.D. Cal.), ECF No. 30-18 (Sulliván Decl.) ¶ 14 & n. 32 *citing* T. Nadeau and M.C. Rains, *Hydrological connectivity between headwater streams and downstream waters: how science can inform policy*, 43 J Am Water Resour Assoc 118 (2007).

⁴ *Compare*, *Preliminary Results of Attempted Analyses of the National Hydrography Dataset and the National Wetlands Inventory* (AR 11767) with Trout Unlimited Comment (April 15, 2019) (AR 4912) and Attachments: Kurt Fesenmyer, GIS Director, Trout Unlimited. 2019. Trout Unlimited Powerpoint Presentation, “What it all means: waters of the U.S. on the ground.” (April 4, 2019) (2019 Trout Unlimited Mapping PowerPoint) (*e.g.*, estimating ephemeral stream miles comprise 57% of U.S. stream miles), available on line [here](#).

⁵ K. Fesenmyer et al. *Large portion of USA streams lose protection with new interpretation of Clean Water Act*. *Freshwater Science* 40(1) (2021), attached as Ex. 1. *See also* Sulliván Decl. ¶ 3 & n. 4.

Southwestern United States, over 81% of stream length have ephemeral or intermittent flow.⁶ Recent geospatial modeling indicates that greater than 85% of stream length in some New Mexico watersheds will lose protection under the 2020 Rule.⁷

To exclude from permitting safeguards the bulk of the stream miles that flow downhill to navigable streams, ignoring the record scientific evidence of their significant nexus to those downstream waters, without accounting for the extent of those stream miles and their cumulative contribution to downstream navigable waters is the very definition of arbitrary and capricious. The Agencies were armed with the record evidence⁸ and the analytical tools to confirm these devastating impacts, but chose not to quantify or examine them. *See* 85 Fed. Reg. 22,292-22,293; Final EA at 10-11, 14-17, 22-23; U.S. EPA and Department of the Army, Corps of Engineers, *Resources and Programmatic Assessment for the Navigable Waters Protection Rule: Definition of “Waters of the United States”* (Jan. 23, 2020), EPA-HQ-OW-2018-0149 (“RPA”) (AR 11573) at 10, 20-24 (ephemeral waters), 26-28 (wetlands).

⁶Sullivan Decl. ¶ 3 & n. 5 *citing* L.R. Levick et al, *The ecological and hydrological significance of ephemeral and intermittent streams in the arid and semi-arid American Southwest*, U.S. Environmental Protection Agency and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046. Washington, D.C. (2008) (Levick et al (2008)) (AR 0037).

⁷ *See*, Andrew G. Robertson Decl. & Exs. A-E, *California v. Wheeler*, 3:20-cv-00-3005-RS (N.D. Cal.), ECF No. 68-2-68-7 (Robertson Decl.) summarizing R. Meyer and A. Robertson. *Navigable Waters Protection Rule spatial analysis: A GIS-based scenario model for comparative analysis of the potential spatial extent of jurisdictional and non-jurisdictional waters and wetlands*. Saint Mary’s Univ. of Minnesota, Winona, MN (2020) (Only 5.2% of stream miles in NM’s Rio Salado watershed, and 8.7% in the Rio Penasco watershed would remain protected under the 2020 Rule).

⁸ *See, e.g.*, Trout Unlimited Comments at 5, 13 & Mapping PowerPoint (AR 4912) *supra* n. 3; U.S. EPA, *Connectivity of streams and wetlands to downstream waters: a review and synthesis of the scientific evidence*. Technical Report, EPA/600/R-14/475f. U.S. Environmental Protection Agency, Washington, D.C. (2015) (Connectivity Science Report) (AR 11691) 2-17, 2-29, 3-4.

B. The 2020 Rule removes CWA protections for tens of millions of the Nation’s remaining wetland acres.

Wetlands serve functions important to the integrity of the associated tributary and downstream waters, acting as sponges to absorb flood waters and sediment, filtering pollutants, and providing the food chain and habitat upon which fish and wildlife depend throughout the watershed. They also provide substantial habitat for migratory birds. *See, e.g.,* Connectivity Science Report ES-2-ES-4, 4-2, 4-5, 6-6 to 6-7; 80 Fed. Reg. 37054, 37063 (June 29, 2015).⁹ Removal of CWA permit review for tens of millions of wetland acres exposes them to dredging and filling and threatens the health of nearby and downstream waters. The Agencies’ internal analysis of the National Hydrography Dataset (NHD)¹⁰ and National Wetlands Inventory (NWI)¹¹ databases estimated that nationally, given the requirement of a “continuous surface water connection,” approximately 51% of the NWI mapped wetland acreage in the U.S. would not be considered adjacent and could lose CWA protections under the Replacement Rule.¹² While the Agencies disclaimed this estimate due to “data limitations,” RPA at 41 & n. 56, other studies indicate this initial, conservative estimate may well be close to the mark.

The 2020 Rule categorically excludes geographically isolated, non-floodplain wetlands that occupy an estimated 16.3 million acres,¹³ at least 15% of the estimated 110 million wetland acres

⁹ *See also* Sullivan Decl.¶ 5, 14, 15 & n. 35.

¹⁰ U.S.G.S. *National Hydrography Dataset* (NHD) (NHD provides GIS data to define the spatial locations of U.S. surface waters. High-resolution NHD is the best nationally available source for surface water data. *See* 85 Fed. Reg. at 22,329).

¹¹ U.S. Fish and Wildlife Service, *National Wetlands Inventory* (NWI) (the NWI is a publicly available dataset that provides detailed information on the abundance, characteristics, and distribution of U.S. wetlands.).

¹² Preliminary Results (AR 11767), *supra* n. 4; *see also*, Plaintiffs’ Memorandum at 11.

¹³ Sullivan Decl.¶ 3 *citing* C.R. Lane and E. D’Amico, *Identification of putative geographically isolated wetlands of the conterminous United States*, 52 J. Am. Water Resources Association 705 (2016) (AR 11724).

1 remaining in the contiguous United States.¹⁴ In just one important geography, the Upper Midwest
 2 prairie pothole region, often called America’s duck factory because it provides habitat to half of the
 3 continent’s migratory waterfowl, the non-floodplain wetlands “that would lose protection equal the
 4 size of the state of West Virginia.”¹⁵ An estimated 61% of Montana’s wetlands lack an apparent
 5 surface water connection to any other waterbody and could lose protection.¹⁶
 6

7 In addition, the Agencies identify three categories of adjacent wetlands where a portion within
 8 each category will lose CWA protections because they neither directly abut a jurisdictional stream nor
 9 have a direct hydrological surface connection to a jurisdictional stream “in a typical year:” 1) wetlands
 10 adjacent to traditionally navigable waters (TNWs); 2) wetlands adjacent to intermittent and perennial
 11 “relatively permanent waters;” and 3) wetlands adjacent to ephemeral and intermittent “non-relatively
 12 permanent waters.” The Agencies fail to estimate the extent of these wetland losses, arbitrarily leaving
 13 that task to others. *See* Final EA at 14-17; Pl. Mem. at 13-14.
 14

15 Taking into account both isolated, non-floodplain wetlands and the various categories of
 16 floodplain wetlands that do not abut or have a clear surface water connection to perennial and
 17 intermittent streams, recent geospatial modeling estimates indicate that tens of millions of the Nation’s
 18 remaining wetlands could lose CWA protections due to the 2020 Rule’s insistence upon evidence of
 19 a surface water connection to a tributary in a “typical year.”¹⁷ A second geospatial analysis modeling
 20
 21

22
 23 ¹⁴ U.S. Fish and Wildlife Service, “Status and Trends of Wetlands in the Conterminous United States
 2004-2009,” at 16, 37 (2009), available [here](#).

24 ¹⁵ Comment of Susan Colvin, Asst Prof, Sustainable Fisheries, & Randall Colvin, Instructor, Unity
 College School of Biodiversity Conservation (2019) (AR 4522), p. 2, available [here](#).

25 ¹⁶ L.K. Vance, *Geographically isolated wetlands and intermittent/ephemeral streams in Montana: extent, distribution, and function*. Montana Natural Heritage Program, Prepared for Montana
 26 Department of Environmental Quality and U.S. Environmental Protection Agency (2009) (Vance
 27 2009), at 15 and n. 15 *cited* in NWF 2014 Clean Water Rule Comments (AR 6880), Att. 10, *supra*
 28 n.2, p. 101 & n. 265.

¹⁷ *See* Pl. Mem. at 13 & 24.

1 at the watershed level, comparing the 2015 Clean Water Rule and the 2020 Rule, estimates that more
 2 than 40% of wetland acres in some New Mexico watersheds will lose federal protection under the
 3 2020 Rule, including wetlands providing important water quality, flood protection, and fish and
 4 wildlife habitat functions.¹⁸ This 2020 modeling estimates that while the 2015 Rule protected 85.7%
 5 of Montana's Roanwood Creek wetlands, the 2020 Rule will protect only 46.6%.¹⁹
 6

7 In wetter systems to the East, the majority of North Carolina's basin, bog, bottomland hardwood
 8 forest, headwater forest, Carolina bay, floodplain pool, hardwood flat, non-riverine swamp forest, pine
 9 savanna, pocosin, and seep wetland types would likely lose federal protection under the 2020 Rule.²⁰
 10 A geospatial analysis in the record indicates that at least 22% of wetlands would no longer be protected
 11 in Minnesota's Cottonwood River watershed, including wetlands providing important water quality,
 12 flood protection, and fish and wildlife habitat functions.²¹ A related modeling analysis for the
 13 Nanticoke River watershed in Delaware and Maryland, also in the record, found that the 2020 Rule
 14 would likely exclude from CWA protection at least 20% of the wetland acres in the watershed,
 15 including an estimated 15,000 wetland acres that retain surface water, over 16,000 that provide wildlife
 16 habitat, and an estimated 9,187 wetland acres that transform nutrients.²²
 17
 18
 19
 20

21 ¹⁸ Meyer and Robertson (2020), *supra* n. 7, Exs. A & B (2015 CWR would protect 97.3% of wetlands
 22 in the New Mexico's Rio Salado watershed, 2020 Rule would protect only 50.7%. The 2015 Rule
 would protect 71.5% of Rio Penasco wetlands; 2020 Rule would protect only 28%).

23 ¹⁹ *Id.* at Ex. C.

24 ²⁰ Southern Environmental Law Center (SELC) Comments at 4 (April 15, 2019) (AR 9717); Moffat
 and Nichol, *Proposed Changes to the Waters of the United States (WOTUS) Definition – Summary
 of M&N Conclusions* (April 7, 2019), AR 9717, Ex. B, available [here](#).

25 ²¹ Meyer, R. and A. Robertson. 2019. Clean Water Rule spatial analysis: A GIS-based scenario model
 26 for comparative analysis of the potential spatial extent of jurisdictional and non-jurisdictional
 wetlands. (Meyer and Robertson 2019) available [here](#) and AR 6880, att. 1 [here](#).

27 ²² Meyer, R., and A. Robertson. 2019. Clean Water Rule Spatial Modeling and Quantitative Analysis
 28 of Jurisdictional Wetlands in the Nanticoke Watershed, Maryland (2019 Nanticoke Analysis) available
 in the record [here](#) (AR 6880, att. 2) and at AR 4897, att. B at p. 89-93.

1 Finally, the Final EA discussion of the Corps' "ORM2" jurisdictional determination database is
 2 also consistent with the Agencies' early 51% loss estimate. In assessing whether or not wetlands are
 3 abutting a TNW, the Corps found that almost half (45%) of these wetlands adjacent to TNWs were
 4 not abutting, and might no longer be subject to CWA protections under the 2020 Rule's narrow
 5 definition of "adjacent wetlands." Final EA at 15-17. This analysis also found that only about 10% of
 6 these wetlands that are adjacent to TNWs, but are "non-abutting," have a surface connection to the
 7 TNW via a culvert or tide gate. This suggests, particularly given the data limitations the Agencies
 8 identify, that about 40% (90% of 45%) of wetlands adjacent to TNWs would likely lose CWA
 9 jurisdiction under the 2020 Rule. *Id.* at 16. Had the Agencies applied such an analysis to wetlands not
 10 abutting other perennial, intermittent, and ephemeral tributaries, they likely would have found that a
 11 very significant percentage of these non-abutting wetlands would lose CWA jurisdiction given the
 12 2020 Rule's insistence on a demonstrable surface water connection in a "typical year." *Id.*

15 In sum, while the Agencies disclaim their initial estimate, ignore record evidence, and refuse to
 16 quantify the extent of wetland losses under the 2020 Rule, it is reasonable to estimate that the Rule
 17 categorically excludes tens of millions of wetland acres in the conterminous United States.

18
 19 **C. The Agencies failed to analyze the crippling effect of removing all permitting**
 20 **requirements for about half of stream miles and tens of millions of wetland acres**
 21 **on the chemical, physical, and biological integrity of the Nation's waters.**

22 As discussed above, and in the plaintiffs' briefing, the Agencies have arbitrarily ignored the
 23 overwhelming scientific evidence of the impacts of small streams and wetlands upstream on the
 24 integrity of downstream waters. This failure to consider the scientific evidence of impacts ignores the
 25 Act's objective and goals at 33 U.S.C. 1251(a) & (a)(2), permitting and water quality standard

framework,²³ legislative history,²⁴ and Supreme Court precedent, “entirely fail[ing] to consider an important aspect of the problem,” in violation of the Administrative Procedure Act (APA). *See* Pl. Mem. at 18-24, *citing, inter alia, Motor Vehicles Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (*State Farm*). Indeed, implementing the 2020 Rule will not only undercut the Act’s objectives, it will make achieving them impossible.

Stream and wetland science have long been at the core of CWA decision-making. In *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985), the Court accepted the Corps’ judgment that wetlands adjacent to lakes, rivers, streams, and other waterbodies are integral parts of the interconnected aquatic environment, noting the ability of wetlands to “filter and purify water draining into adjacent bodies of water, ... to slow the flow of surface runoff into lakes, rivers, and streams and thus prevent flooding and erosion,” and to “serve significant natural biological functions, including food chain production, general habitat, and nesting, spawning, rearing and resting sites for aquatic ... species.”²⁵ Justice Kennedy’s significant nexus jurisdictional standard in *Rapanos* flows from *Riverside Bayview* and *SWANCC*, calling for more than “speculative or insubstantial evidence” that “the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood

²³ Congress reinforced the Act’s commitment to its 1251(a) objectives by explicitly requiring, e.g., that the Act’s water quality and permitting standards provide for fish, wildlife, and water-based outdoor recreation. *See*, 33 U.S.C. §§ 1312 (a), 1313 (d), 1314 (a), 1317 (a)(2), 1321 (b) and (f)(4), 1343 (c), 1344(b)(1) (cross-referencing 1343(c)), and 1362(13).

²⁴ *See, e.g.*, Senate Committee on Public Works, S. Rep. No. 92-414, 92nd Cong., 76, 77 (1971); *see also*, Sen. Baker, 123 Cong. Rec. 26718-19 (daily ed. Aug. 4, 1977).

²⁵ 474 U.S. at 134-35, 139 (citations omitted) (internal quotation marks omitted). Twelve years later, Chief Justice Rehnquist observed, “It was the significant nexus between the wetlands and ‘navigable waters’ that informed our reading of the CWA in *Riverside Bayview Homes*.” *Solid Waste Agency of N. Cook Cty v. US Army Corps of Eng.*, 531 U.S. 159, 167 (2001) (*SWANCC*).

1 as ‘navigable.’” *See, Rapanos*, 547 U.S. at 759, 779-80 (Kennedy, J. concurring in the judgment). *See*
 2 Pl. Mem. at 7-8, 20-24.

3 The 2006 *Rapanos* significant nexus standard and the 2008 *Rapanos* Guidance (AR 11695)
 4 sparked EPA research conducting, compiling, and synthesizing some 1,200 peer-reviewed scientific
 5 studies of the chemical, physical, and biological influences of streams and wetlands on downstream
 6 waters in a watershed, and culminating in the 2015 Connectivity Science Report (Connectivity Report
 7 or Report).²⁶ The Report underwent an extensive public peer review by an EPA Science Advisory
 8 Board (SAB) panel of scientists in 2013-2014 and provided the scientific foundation for the proposed
 9 and final 2015 Rule. *See* 80 Fed. Reg. at 37,057.

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 11 In eliminating discharges to so many wetlands and ephemeral streams from the CWA permitting
 12 framework and other CWA protections, the Agencies have arbitrarily ignored the Connectivity Report,
 13 EPA SAB Panel recommendations,²⁷ and the growing body of evidence that streams and wetlands are
 14 biologically, chemically, and hydrologically connected throughout every watershed. This science
 15 demonstrates that these streams and wetlands contribute to freshwater ecosystem integrity, and that
 16 their destruction and degradation undermines and degrades the integrity of the waters downstream.²⁸
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19 The Agencies categorically exclude ephemeral streams, ignoring the Report’s “strong scientific
 20 support for the conclusion that ephemeral streams exert a strong influence on the character and
 21 functioning of downstream waters.” *See* 85 Fed. Reg. at 22,251; Final EA at 107 (acknowledging
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24 ²⁶ Connectivity Science Report *supra*, n.8.

25 ²⁷ SAB’s finding at SAB Letter to Gina McCarthy. October 17, 2014. *SAB Review of the Draft EPA*
 26 *Report Connectivity of Streams and Wetlands* (2014 SAB Connectivity Science Report Review) (AR
 0386) available [here](#).

27 ²⁸ Sullivan Decl. ¶¶6-7 & notes 17-19 *citing* Connectivity Science Report, *supra*, n. 8 & 2014 SAB
 28 Connectivity Science Report Review, *supra* (AR 0386).

1 that ephemeral and intermittent streams “perform similar hydrological and ecological functions,
 2 including moving water, sediments, and nutrients, providing connectivity within the watershed and
 3 habitat to wildlife.”).²⁹ Pl. Mem. at 19-20 & 24-25.

4 The Agencies also disregard the Report’s findings that, with or without a direct surface water
 5 connection, floodplain wetlands serve functions important to the integrity of associated tributaries and
 6 downstream waters, acting as sources of key nutrients and dissolved organic compounds and providing
 7 spawning and rearing habitat for many species of fish and other aquatic organisms.³⁰ They also
 8 disregard the SAB’s findings that both floodplain and non-floodplain wetlands support the food chain
 9 and habitat upon which fish and wildlife depend throughout the watershed.³¹

10 The Agencies then impose, without scientific justification, a novel “typical year” test to exclude
 11 periods of flooding or drought.³² This test ignores the Connectivity Report’s findings that floodplain
 12 wetlands without a direct surface water connection to a jurisdictional water in a “typical year” are key
 13 players in reducing the number and severity of floods, as well as in storing stormwater runoff and
 14 minimizing non-point pollution.³³ It also disregards that atypical flood years are also critical for stream
 15 function, i.e. to mobilize sediment and wash accumulated pollutants downstream.³⁴ *See also* Pl. Mem.
 16 at 13-14, 24 (discussing the scientific and policy flaws of imposing the “typical year” limitation on
 17 stream and wetland jurisdiction).
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23 ²⁹ *See also, e.g.*, Connectivity Science Report at ES-5 & ES-7 (“[T]he evidence for connectivity and
 24 downstream effects of ephemeral streams was strong and compelling . . .”).

25 ³⁰ Connectivity Science Report at 4-4 & 4-2, 4-5, 6-6 to 6-7; 80 Fed. Reg. at 37,062-37,063.

26 ³¹ *Id.*; Sullivan Decl. ¶16.

27 ³² 85 Fed. Reg. at 22,274-75.

28 ³³ Sullivan Decl. ¶¶47-48 & n. 168 *citing, inter alia*, M. Acreman and J. Holden, *How wetlands affect floods*, 33 Wetlands 773 (2013).

³⁴ *See, e.g.*, Connectivity Science Report, p. 3-15 and papers cited therein.

1 In addition, the Agencies ignore the aggregate hydrological and biological contributions of
 2 similarly situated wetland complexes such as California vernal pools or prairie potholes to the
 3 physical, chemical, and biological integrity of their watersheds, and the significant adverse
 4 consequences of doing so.³⁵

5
 6 The Agencies also disregard the close, integrated connections between surface water and
 7 groundwater flow systems that characterize how natural waters accumulate on any given landscape,
 8 fundamentally mischaracterizing the very nature of water connectivity. For example, the health of a
 9 river depends in no small part on the boundary where river water and groundwater mix in the gravel
 10 under and around the river channel.³⁶

11
 12 In sum, the Agencies ignore the extensive underlying connectivity science in the record and fail
 13 to analyze the crippling effects of categorically excluding from CWA permit review and water quality
 14 standard protections millions of ephemeral stream miles, some intermittent and perennial streams, and
 15 tens of millions of acres of both floodplain and non-floodplain wetlands. By ignoring the underlying
 16 connectivity science, the Agencies undermine the primary statutory objective, goals, and permitting
 17 framework of the CWA. As such, the Agencies have acted arbitrarily and capriciously, running afoul
 18 of decades of Supreme Court precedent. *See, e.g., State Farm* at 43. *See also* Pl. Mem. at 20-24;
 19 *Maislin Indus., U.S., Inc. v. Primary Steel*, 497 U.S. 116, 134-35 (1990) (By ignoring the CWA's
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 23 ³⁵Sullivan Decl. ¶14; Connectivity Science Report at ES-5-6, ES-10-14; 80 Fed. Reg. at 37,063-
 24 37,064, 37071-37,072; EPA SAB Letter to Gina McCarthy, Administrator, *SAB Consideration of the*
 25 *Adequacy of the Scientific and Technical Basis for the Proposed Rule Titled Definition of Waters of*
 26 *the United States under the Clean Water Act*. U.S. EPA (September 30, 2014) (2014 SAB Clean
 27 Water Rule Review) at 3, *quoted and cited in* NWF & AR Comments (AR 6880), at 24 and available
 28 [here](#); *See also* U.S. EPA and U.S. Army Technical Support Document for the Clean Water Rule:
 Definition of Waters of the United States (May 27, 2015) (2015 TSD) at 330-349, included in record
 as Ex. 16 to Waterkeeper Alliance Comments (AR 11318).

³⁶Sullivan Decl. ¶18; Connectivity Science Report at ES-2-3; 80 Fed. Reg. at 37,063; 2014 SAB
 Clean Water Rule Review, *supra* n. 35, at 3.

1 science mandate and undercutting its primary objective, the Agencies violate the CWA and the APA);
 2 *County of Maui v. Hawaii Wildlife Fund*, 140 S. Ct. 1462, 1468 & 1474 (2020) (rejecting EPA’s CWA
 3 interpretation as allowing “easy evasion of the statutory provision’s basic purposes.”).

4 **II. The 2020 Rule’s elimination of all CWA permit requirements for about half of the Nation’s**
 5 **remaining stream miles and tens of millions of its wetland acres undermines the Act’s**
 6 **primary objective and cripples the Act’s many programs designed to work together to**
 7 **restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.**

8 The rulemaking record, the underlying science, and the facts presented in this 2020 Rule challenge
 9 demonstrate that eliminating all CWA permit requirements and water quality standard protections for
 10 about half the Nation’s stream miles and tens of millions of its remaining wetland acres will
 11 significantly degrade those waters and the downstream waters they support. This radical reduction in
 12 protection potentially renders futile the remaining efforts to meet state water quality standards.

13 In order to achieve those water quality standards, the CWA created an interrelated system of
 14 regulatory and incentive provisions. These provisions work together towards restoring water quality;
 15 many of them are implemented by the states pursuant to mandates from the EPA. CWA §402 created
 16 the National Pollution Discharge Elimination System (NPDES) which requires “point sources” of
 17 pollution to obtain permits. Reduction of pollutants from end-of-pipe systems—such as industrial
 18 waste, municipal wastewater, and mining operations—into waters is managed under §402 permits.
 19 State agencies administer this NPDES system in all but four states (and the District of Columbia).
 20 Section 303 requires states to establish water quality standards for all waters in their borders. Under
 21 §302, NPDES permits must ensure compliance with these water quality standards and, under §303(d),
 22 states may adopt additional requirements in permits, and otherwise, if needed to restore impaired
 23 waters. Finally, the §404 permit program controls discharges of dredge and fill materials to streams
 24 and wetlands so that they maintain hydrologic function—passing water from upstream down,
 25 moderating flood flows, providing cold and clean groundwater inflows in dry times, managing
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1 sediment and nutrient inputs, and creating fish and wildlife habitat. Unlike the §402 permit program,
2 only three states issue §404 permits; others rely on the Corps to do so. This means that, especially with
3 §404, the scope of CWA jurisdiction defines the limits of protection for the Nation's waters.

4 Removing about half of stream miles and tens of millions of wetland acres from CWA jurisdiction
5 for all permit purposes, but especially §404 permits, will make it much more difficult to achieve the
6 water quality standards required under §303. Removing these waters from CWA jurisdiction will
7 place enormous stress on the CWA's other provisions, and indeed make their implementation
8 potentially futile. Permitting provisions for activities in jurisdictional waters will have to be made
9 even more stringent due to upstream pollution and loss to wetland and hydrologic function. The
10 increased burden will be borne by state agencies who implement most CWA provisions, and by
11 businesses that discharge into jurisdictional waters.
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14 **A. The 2020 Rule's elimination of CWA permit obligations is so extensive that it likely**
15 **makes achieving the Act's objective impossible, because the Act's programs will be so**
16 **crippled that they will not be able to protect the Nation's waters.**

17 The Agencies admit the 2020 Rule will degrade the functions of ephemeral streams and non-
18 floodplain, isolated wetlands, resulting in an increase in downstream flooding, increased water
19 pollution in jurisdictional waters, increased oil spill pollution, and increased drinking water treatment
20 costs. Yet they fail to quantify any of these impacts. *See* RPA at 10, 20-24 (ephemeral waters), 26-28
21 (wetlands). *See also, e.g.*, Final EA at Figure III-9 & 105-107 and U.S. Environmental Protection
22 Agency and U.S. Army Corps of Engineers, "Economic Analysis for the Proposed Revised Definition
23 of 'Waters of the United States,'" at 133-134 (Dec. 14, 2018) (AR 0004). *See also* Pl. Mem. at 18-20.
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1 The Agencies also acknowledge that the 2020 Rule will undermine the effectiveness of CWA
 2 programs essential to maintaining the integrity of the Nation’s waters, including §303 water quality
 3 standards, §303(d) “Total Maximum Daily Load” (TMDL) non-point source pollution reduction
 4 programs, state and tribal §401 certification programs, §402 and §404 discharge permits, and §311 oil
 5 spill prevention programs. *See, e.g.* Final EA at 28-32.
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7 The Agencies acknowledge that the 2020 Rule will disproportionately degrade the quality of
 8 waters in the arid West, ignoring the Act’s mandate to maintain and restore water quality of waters for
 9 the whole country.³⁷ The Agencies fail to reconcile abandoning huge swaths of the waters on the
 10 Nation’s more arid landscapes with effective implementation of the Act’s remaining permit
 11 obligations. Nor do they explain how a rule that will result in substantial pollution of one region’s
 12 waterways fits the Act’s fundamental purpose to create a baseline level of protection for all the
 13 Nation’s waters. Congress passed the CWA in 1972 in part because the 1965 Water Quality Act,
 14 which had put states in the lead to protect water quality, had failed (as had an earlier 1948 Act).
 15

16 While acknowledging that the 2020 Rule dismantles the Act’s comprehensive protection for the
 17 Nation’s waters, the Agencies cavalierly assert that future protections will “depend[] on state or tribal
 18 regulations...where such regulations exist.” *See* RPA at 86 (impacts to §402 and §404 permitting);
 19 RPA at 59, 61-62 (with respect to TMDLs), 64 & 70 (with respect to §311 oil spill programs), and 80,
 20 84 & 86 (with respect to 401, 402, & 404 permitting). *See* 85 Fed. Reg. at 22,269. The CWA simply
 21 does not empower the Agencies to pass the buck in this way.
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26 ³⁷ *See* RPA at 22, 61; EA at 56 (fewer facilities requiring NPDES permits in the arid West); Final
 27 EA at 61-62 (fewer construction and industrial stormwater discharge permits in the arid West) & at
 28 107 (importance of ephemeral streams in the arid West for replenishing groundwater, “which people
 in the study area heavily depend on for irrigation and drinking water supply (Levick et al., 2008)).”

On the contrary, the elimination of federal protection for such a large swath of the Nation's waters will put enormous stress on states and tribes that implement both the other provisions of the CWA for remaining jurisdictional waters and state programs. *See* Pl. Mem. at 28, 41-44. Yet the Agencies fail to address whether, and how, the Rule will affect implementation of the CWA's other provisions. The Rule's elimination of CWA permit obligations is so extensive that it may make the Act's other provisions too weak to "restore the chemical, physical, and biological integrity of the Nation's waters."

B. The extensive loss of protected stream and wetland areas resulting from the Rule will degrade the chemical, physical, and biological integrity of the Nation's waters.

1. The Rule's elimination of CWA permitting obligations for so many streams and wetlands will significantly degrade fish and wildlife habitat and the physical, chemical, and biological integrity of the Nation's waters.

Freshwater habitats are vital to fish and wildlife, yet too many remain severely impaired. EPA rates 46% of U.S. streams and rivers as in poor condition.³⁸ Extinction rates for species dependent on freshwater habitats are four to five times higher than their terrestrial counterparts³⁹ due to habitat loss and pollution.⁴⁰ Seasonal waterways and non-floodplain, isolated wetlands provide important physical habitats for various life stages of fish and wildlife, and contribute to the physical, chemical, and biological integrity of downstream receiving waters on which additional fish and wildlife depend.⁴¹ Ephemeral streams, non-floodplain wetlands, and floodplain wetlands play an important role in

³⁸EPA, National Rivers and Streams Assessment 2008-2009, at xiii, available [here](#).

³⁹ Ricciardi, Anthony, and Joseph B. Rasmussen. "Extinction rates of North American freshwater fauna." *Conservation biology* 13.5 (1999): 1220-1222.

⁴⁰ Miller, Robert R., James D. Williams, and Jack E. Williams. "Extinctions of North American fishes during the past century." *Fisheries* 14.6 (1989): 22-38.

⁴¹ Colvin, Susan A.R. et al., "Headwater streams and wetlands are critical for sustaining fish, fisheries, and ecosystem services." *Fisheries* 44.2 (2019): 73-91 submitted to record by American Fisheries Society (April 15, 2019) (AR 7547).

1 buffering excess nutrients and sediment.⁴²

2 By leaving so many headwater streams and wetlands subject to increased pollution, dredging and
 3 filling, the 2020 Rule will severely impair the quality of downstream waters that depend on the
 4 functions performed by streams and wetlands throughout the watershed.⁴³ Headwater streams and
 5 wetlands are critical for sustaining aquatic ecosystems, fisheries, and overall watershed integrity,
 6 including slowing and retaining flood waters and sediment and nutrient pollution, and providing
 7 habitat.⁴⁴ Several fish species occupy primarily headwater tributaries, many of which are intermittent
 8 or ephemeral.⁴⁵ By removing CWA protections for all ephemeral streams, as well as their associated
 9 wetlands, the 2020 Rule subjects about half the Nation's stream miles⁴⁶ and associated wetlands to
 10 loss of habitat for many fish and wildlife species, including many that are threatened or endangered.⁴⁷
 11 The list of imperiled species includes scores of fish species from darters and pupfish to sturgeon, trout,
 12 steelhead, and salmon.⁴⁸ The degradation of these headwaters then compounds pollution and habitat
 13 degradation downstream.⁴⁹ Increased alteration of ephemeral stream hydrology can increase peak
 14 flows and increase the transport of eroded sediment downstream, increasing sediment loads in
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21 ⁴²Connectivity Science Report, *supra* n.8, at ES-5-6, ES-10-14.

22 ⁴³See Sullivan Decl. ¶3 & notes 13-14 *citing* Colvin, et al. (2019), *supra* n. 41; L.F. Creed et al.,
 23 Enhancing protection for vulnerable waters. 10 Nat Geosci 809 (2017).

24 ⁴⁴Colvin et al (2019), *supra* n. 41.

25 ⁴⁵*Id.* (The fry of at least one Colorado rare and endangered fish use wetlands as habitat).

26 ⁴⁶See Trout Unlimited Comments at 5, 13 & Mapping PowerPoint (AR 4912) *supra* n. 4; K.
 27 Fesenmyer et al (2021) (Ex. 1) and Sullivan Decl. ¶ 3 & n. 4, *supra*, n.5.

28 ⁴⁷See Sullivan Decl. ¶¶ 3 & 16.

⁴⁸*Id.* at ¶49; *See also*, Colvin et al (2019), *supra* n. 41, at 78-82 (AR 7547).

⁴⁹See Sullivan Decl. ¶¶ 3 & 14; Connectivity Science Report at ES-5 to ES-6; 80 Fed. Reg. at
 37,063-37,064.

1 downstream waters.⁵⁰ Sediment pollution harms aquatic biota, such as fish and aquatic invertebrates,⁵¹
 2 and has been estimated to cause \$16 billion in environmental damage annually.⁵²

3 By eliminating CWA permit requirements for tens of millions of the remaining wetland acres in
 4 the U.S., the Rule removes from federal protection millions of wetland acres that provide essential
 5 pollution-trapping, flood control, and fish and wildlife habitat. The extensive, cumulative, and lasting
 6 loss of these functions will lead to increases in nutrient, sediment, and other pollution, increases in
 7 flooding and flood damage, reductions in water storage during times of drought, and reductions in fish
 8 and wildlife populations.⁵³ Small wetlands, often outside the floodplain, can remove 50% of nutrient
 9 pollution runoff from cities and farms into downstream waters.⁵⁴ Non-floodplain wetlands such as the
 10 Midwest's prairie potholes also help remove nutrient pollution; draining them risks introducing high
 11 levels of phosphorus elsewhere in the watershed.⁵⁵

12 By removing millions of streams and wetlands from permit review and any mitigation
 13 requirement, the 2020 Rule will degrade the water quality and habitat of downstream waters. The
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19 ⁵⁰See Sullivan Decl. ¶ 28 & n. 5 *citing* Levick et al (2008) (AR 0037). *See also* Connectivity Science
 20 Report at 3-14, 3-15.

21 ⁵¹See Sullivan Decl. ¶ 28 & n. 96 *citing* T.R. Angradi, *Fine sediment and macroinvertebrate*
 22 *assemblages in Appalachian streams: a field experiment with biomonitoring applications*, 18 *Journal*
 23 *of the North American Benthological Society* 49 (1999).

⁵²Sullivan Decl. ¶ 28 *citing* Mid-America Regional Council, Kansas City, MO. *What is a watershed?*
 24 *What is sediment pollution?* available [here](#).

⁵³See Sullivan Decl. ¶¶ 3, 5, 14, 16; Connectivity Science Report at ES-5-6, ES-10-14; 80 Fed. Reg.
 25 at 37,063-37,064, 37071-37,072; and Colvin et al (2019), *supra* n. 41.

⁵⁴See Sullivan Decl. ¶ 41 *citing* F.Y. Cheng and N.B. Basu, *Biochemical hotspots: role of small*
 26 *water bodies in landscape nutrient processing*, 53 *Water Resources Research* 5038 (2017); *see also*
 27 Connectivity Science Report at ES-10.

⁵⁵See Sullivan Decl. ¶ 41 *citing* P. Badiou et al., *Phosphorus retention in intact and drained prairie*
 28 *wetland basins: implications for nutrient export*, 47 *J Environ Qual* 902 (2018).

1 Army Corps issues over 52,000 Section 404 permits on average each year.⁵⁶ In the West, elimination
 2 of §404 permits for ephemeral streams and non-floodplain wetlands means large portions of
 3 watersheds may be paved over without permit review and without any requirement to minimize or
 4 mitigate harm. The elimination of §404 permits for an estimated 4.9 million miles of ephemeral
 5 streams,⁵⁷ at least 16.3 million acres of non-floodplain, geographically isolated wetlands,⁵⁸ and
 6 millions more of non-abutting floodplain wetlands will subject those upstream and upslope waters to
 7 pollution, development, dredging, and filling. It will also eliminate the permanent protection of
 8 wetlands or ephemeral streams routinely required as mitigation under issued §404 permits.
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10 **2. Several examples demonstrate how the loss of protection against, and mitigation for,**
 11 **filling ephemeral streams and non-floodplain and non-abutting floodplain wetlands**
 12 **will degrade the Nation's waters.**

13 The following examples highlight projects that currently require §404 permits even though they
 14 discharge to ephemeral waters, non-floodplain wetlands, or non-abutting floodplain wetlands. They
 15 demonstrate how the loss of permanent protection for these features' hydrological function can ripple
 16 through whole watersheds, with significant adverse consequences.

17 The New England Clean Energy Connect transmission line would run from the Canadian border
 18 to central Maine, crossing 25 ephemeral streams along its approximately 60-mile route through the
 19 Kennebec River basin.⁵⁹ If built under the 2019 rule, the project would have to spend over \$2 million
 20 to permanently protect vernal pools, over \$3 million to permanently protect other of the region's
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 24 ⁵⁶ U.S. ENVTL. PROT. AGENCY, *Economic Analysis for the Proposed Clean Water Act Section 401*
Rulemaking (Aug. 2019) Table 3-1 at 7, available [here](#).

25 ⁵⁷Fesenmyer, Kurt A. et al. (2021) (Ex. 1), *supra* n. 5.

26 ⁵⁸Lane and D'Amico (2016), *supra* n. 13.

27 ⁵⁹GOOGLE EARTH PRO, *Maine Data Maps – NECEC Project* (2019)(available on the State of Maine
 28 website, these maps depict the route of the transmission line and stream crossings and wetlands along
 the route. Ephemeral stream crossings are labeled as such on the maps.).

wetlands, and over \$2 million to mitigate for stream impacts, among other required §404 permit mitigation.⁶⁰ Under the 2020 Rule, this and future projects would no longer have to permanently protect the important watershed hydrologic functions that vernal pools and dozens of ephemeral streams provide. As a result, the downstream waterbodies that remain subject to Clean Water Act jurisdiction will receive more pollution and degradation, making compliance with water quality standards much more difficult and imposing higher burdens on downstream permittees.⁶¹

In Montana's Tongue River basin, in 2015, approximately 35.21% of 142 waters that were impacted by projects permitted under § 404 were ephemeral streams and non-floodplain wetlands.⁶² If the new rule had been in effect, loss of permit conditions and mitigation would have degraded or eliminated these streams, and wetlands would face degradation or elimination, resulting in increased downstream delivery of pollutants, including nutrients⁶³ and sediment,⁶⁴ as well as higher downstream peak flows and flood risk.⁶⁵ Degradation in the Tongue Basin could also lead to degradation in the iconic Yellowstone River downstream.⁶⁶

The West faces high rates of urbanization.⁶⁷ For example, two and one half percent of the 18,000 acres in Bernalillo County New Mexico, home to Albuquerque, was converted to urban land use

⁶⁰Army Corps of Engineers, Public Notice on Permit Application File No. NAE-2017-01342 (2019) at Table 1-1, available [here](#).

⁶¹Colvin *et al* (2019), *supra* n. 41.

⁶²U.S. ARMY CORPS OF ENGINEERS, *AJD Form*, JD No. NWO-2015-01686-MTB at 9-12 (2015) (recently removed from Corps Omaha District jurisdictional determination website).

⁶³Cheng, Frederick Y., & Nandita B. Basu (2017): 5038-5056, *supra*, n.54.

⁶⁴Levick *et al.* (2008) (AR 0037), *cited supra*, at nn. 6, 37, 50.

⁶⁵Acreman, M., and J. Holden (2013) *cited supra*, n. 33.

⁶⁶American Rivers, [Yellowstone River](#) (2019) (world-renown blue ribbon trout fishery).

⁶⁷White, Eric M., Anita T. Morzillo, and Ralph J. Alig. *Past and projected rural land conversion in the US at state, regional, and national levels*. Landscape and Urban Planning 89.1-2 (2009): 37-48.

1 between 2001 and 2016.⁶⁸ This included a new residential development near Tijeras Arroyo, an
 2 ephemeral tributary to the Rio Grande, a traditional navigable water.⁶⁹ The 350-lot project, Juan Tabo
 3 Hills West, permanently filled 4.2 acres of ephemeral streams. The developer mitigated these impacts
 4 by permanently preserving 12.3 acres of Tijeras Arroyo and building a half-acre stormwater retention
 5 pond.⁷⁰ Under the 2020 Rule, similar future developments will neither offset their adverse impacts nor
 6 mitigate lost hydrologic function. As a result, Bernalillo County's continuing urbanization will
 7 contribute sediment, alter flow regimes, and amplify flood impacts to over 1,600 miles of the Rio
 8 Grande's downstream receiving waters. These waters supply surface drinking water to 1.2 million
 9 residents in New Mexico and Texas⁷¹, and support warmwater and coldwater fisheries.⁷²

10
 11 Although more than a hundred times as many §404 as §402 permits are issued each year,⁷³ the
 12 elimination of §402 permits on ephemeral streams and non-floodplain wetlands under the 2020 Rule
 13 is significant. In Colstrip, Montana, the Rosebud coal mine's industrial outfall into an alleged
 14 ephemeral stream was litigated in 2019: *Montana Env'tal Info. Center v. Montana Dept. Env'tal*
 15 *Quality*, 2019 MT 213, ¶¶99-100, and was remanded to determine the contested issues of whether the
 16 receiving water was intermittent or ephemeral, and what water quality standards applied. Under the
 17 2020 Rule, the Rosebud mine's heavy metals and other mining waste could be introduced into
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23 ⁶⁸ U.S. GEOLOGICAL SURVEY, *National Land Cover Dataset Land Cover Change* (2016), [here](#).

24 ⁶⁹ U.S. ENVTL. PROT. AGENCY, *Clean Water Act Approved Jurisdictional Determinations Database*
 (2020), available [here](#).

25 ⁷⁰ U.S. ARMY CORPS OF ENGINEERS, *Juan Tabo Hills West Subdivision Project (Action No. SPA-2012-00299-ABQ)* (2014), available [here](#).

26 ⁷¹ U.S.D.A. FOREST SERV., *Forests to Faucets* (2020) available [here](#).

27 ⁷² N.M. ENV'T DEP'T, *OpenEnviroMap* (2020) available [here](#).

28 ⁷³ U.S. ENVTL. PROT. AGENCY, *supra* n. 56.

ephemeral streams without a §402 permit. Yet during any wet, rainy period, the mining waste would still flow downstream to the Yellowstone River.⁷⁴

The Agencies' dismissal of the magnitude of the impacts of the 2020 Rule on water quality, and their indirect dismantling of the Act's comprehensive permit protections for the Nation's waters, "entirely fail[s] to consider an important aspect of the problem," in violation of the APA. The 2020 Rule is arbitrary and capricious. *State Farm* at 43. *See also* Pl. Mem. at 20, 24-25.

III. The Agencies' elimination of permitting for activities that discharge to about half of U.S. stream miles and tens of millions of U.S. wetland acres will significantly harm the outdoor recreation, fisheries, and restoration economy and rural communities depending on it.

A. The Agencies failed to consider the reliance interests of Amici in all previous, substantially broader federal protections for the waters of the U.S.

For almost fifty years, Amici have relied on a broad, science-based definition of "Waters of the United States" to ensure CWA protection for the key watershed components - streams and wetlands - that together maintain and restore the physical, chemical, and biological integrity of the Nation's waters, achieving "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water...." 33 U.S.C. § 1251(a)(2). Amici organizations representing individual anglers, hunters, boaters, birdwatchers, and outdoor recreation businesses, have invested heavily in conservation advocacy and restoration projects, as well as organizing countless volunteer hours to conserve and restore streams, rivers, lakes, and wetlands as

⁷⁴ The 2020 Rule preamble states that a §402 permit is no longer required for a discharge of pollutants into an ephemeral stream. While it suggests exceptions, 85 Fed. Reg. at 22,297, the Rule itself carves out none. The Court's holding in *County of Maui* likely requires rejection of an exclusion for pollutant discharges into an ephemeral stream such as the Rosebud mine's, as such an exclusion would create prohibited "loopholes that undermine the statute's basic federal regulatory objectives" and undermine states' water quality controls. 140 S. Ct. at 1468, 1477.

1 fish and wildlife habitat in support of fish and wildlife and related outdoor recreation.⁷⁵ Our individual
 2 members have contributed millions of dollars in license and other user fees that directly support fish
 3 and wildlife habitat. The Agencies' abandonment of CWA protections for about half of the remaining
 4 stream miles and tens of millions of wetland acres, crippling collective efforts to restore and maintain
 5 the integrity of the Nation's waters, without addressing the serious reliance interests of Amici is
 6 arbitrary and capricious. *See*, Pl. Mem. at 25-28 and cases cited therein.

8 **B. The removal of protections for so many streams and wetlands will significantly harm**
 9 **outdoor recreation, commercial fishing, and restoration businesses and the rural**
 10 **communities that depend on them.**

11 On an annual basis, headwater streams provide \$15.7 trillion and non-floodplain wetlands, alone,
 12 provide \$673 billion in ecosystem services for the conterminous U.S. and Hawaii.⁷⁶ These waters'
 13 increased degradation and destruction at the scale the Rule portends threatens the economy, including
 14 water-dependent sectors of particular interest to Amici.

15 Nationally, trout anglers spent \$3.5 billion on their pursuits, supported over 100,000 jobs, and had
 16 a \$10 billion economic impact, including \$1.3 billion in federal and state tax revenues in 2006⁷⁷ and
 17 30.1 million freshwater anglers spent \$29.9 billion on freshwater fishing trips in 2016.⁷⁸ Commercial
 18 and recreational fisheries contributed over \$212 billion in economic impact and 1.7 million jobs in
 19

22 ⁷⁵ Amici investment supports state fish and wildlife resources owned or held in trust for the use and
 23 enjoyment of the people of the State. *See, e.g., Betchart v. Department of Fish & Game*, 158
 24 Cal.App.3d 1104, 1106 (1984); Cal. Fish & Game Code, § 1801; Wis. Stat. § 29.011.

25 ⁷⁶Colvin et al. (2019), *supra* n. 41, *citing* Nadeau and Rains (2007) and Lane and D'Amico (2016),
cited supra at n. 3 & nn. 13 and 58, respectively.

26 ⁷⁷ U.S. Fish and Wildlife Service, *2011 National Survey of Fishing, Hunting and Wildlife-Associated*
Recreation, FHW//11-NAT (rev'd 2014) available [here](#).

27 ⁷⁸ U.S. Department of Interior, U.S. Fish and Wildlife Service & U.S. Dept. of Commerce, U.S. Census
 28 Bureau. *2016 National Survey of Fishing, Hunting and Wildlife-Associated Recreation*, avail. [here](#).

2016.⁷⁹ North Carolina's commercial and recreational fisheries were estimated to have \$430 million in revenue and an economic impact of \$3.9 billion in 2017, respectively.⁸⁰

The Outdoor Industry Association recently reported that consumers spend \$887 billion annually on outdoor recreation; over \$175 billion on fishing, kayaking, rafting, canoeing, scuba diving and other water sports alone.⁸¹ In 2006, more than 1.3 million waterfowl hunters expended about \$900 million, generating an estimated 28,000 jobs and a total related industry output of \$2.3 billion.⁸² Birding, much of it water-related waterfowl watching by 77% of away-from-home birders, supported total trip-related and equipment expenditures of \$36 billion in 2006, generating 671,000 jobs and a total industry output of \$82 billion.⁸³ Beyond outdoor recreation, the restoration industry, including the private sector mitigation banking industry, directly provides 126,111 jobs a year, from engineers and construction firms to greenhouses and nurseries. Overall, the restoration industry contributes 221,398 jobs each year and has a gross economic impact of nearly \$25 billion each year.⁸⁴

The annual cost of the nutrient pollution of U.S. freshwaters, which will only increase in severity under the 2020 Rule, is estimated at \$2.2 billion, including recreational costs, property value losses,

⁷⁹National Marine Fisheries Service. 2018. Fisheries Economics of the United States, 2016. U.S. Department of Commerce, NOAA Tech. Memo. NMFS-F/SPO-187a, 243 pp., available [here](#).

⁸⁰See Smith Decl. ¶13, California v. Wheeler, 3:20-cv-00-3005-RS (N.D. Cal.), ECF No. 30-6.

⁸¹Outdoor Industry Association. 2017. The Outdoor Recreation Economy, available [here](#) & in the record at, e.g., Kassen, Melinda, Comments of TRCP (4/15/19), p. 4 (AR 4941).

⁸²NWF & AR Comments, *supra* n. 1 (AR 6880), at 103 citing Carver, E. 2008. *Economic impact of waterfowl hunting in the United States. Addendum to the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. U.S. Fish and Wildlife Service, Report 2006-2, 13 pp.

⁸³*Id.* citing Carver, E. 2009. *Birding in the United States. Addendum, 2006 Natl. Survey of Fishing, Hunting, & Wildlife-Associated Recreation*. U.S. Fish and Wildlife Serv., Report 2006-4, 15 pp.

⁸⁴*Id.*, at 97-98, 102 citing Todd BenDor et al., *Estimating the Size and Impact of the Ecological Restoration Economy*, PLoS One, 3, 7-9 (2015).

1 drinking water treatment costs, and a conservative estimate of the costs of lost biodiversity.⁸⁵ Non-
 2 floodplain wetlands contribute trillions of dollars in flood damage reduction benefits.⁸⁶ Prairie potholes
 3 in the Red River valley alone contribute \$800 million in avoided flood damage and other benefits.⁸⁷

4 The Agencies misleadingly underestimate the effect of the 2020 Rule on the outdoor recreation
 5 economy, fishermen, hunters, boaters, swimmers, other outdoor enthusiasts, commercial fisheries and
 6 the fishing industry. Economists demonstrated in the record that when the Agencies' errors
 7 undercounting wetlands and wetland benefits are corrected, the 2020 Rule could result in over \$1.6
 8 billion in annual benefits foregone under the §404 program alone, and the costs of the 2020 Rule far
 9 outweighing its benefits. *See*, Institute of Policy Integrity Amicus Brief at 10-18. The Agencies' failure
 10 to consider and inform decision-makers and the public of the full economic cost and foregone benefits
 11 of the 2020 Rule renders the rulemaking and the 2020 Rule arbitrary and capricious. *State Farm* at 43.

14 CONCLUSION

15 The Agencies' removal of CWA protections for about half the remaining stream miles and tens
 16 of millions of wetland acres in the conterminous U.S. without considering the underlying connectivity
 17 science, without quantifying or analyzing the extent and harmful impacts of those lost protections, and
 18

22 ⁸⁵*Id.*, at 98, 103-14 *citing* Dodds, W.F. et al. 2009. *Eutrophication of U.S. freshwaters: Analysis of*
 23 *potential economic damages*. Environmental Science and Technology 43:12-19.

24 ⁸⁶*Id.*, at 84, 103 *citing e.g.*, Brody, S.D. et al. 2014. *Examining the impact of land use/land cover*
 25 *characteristics on flood losses*. Journal of Environmental Planning and Management 57: 1252-1265
 26 and Jacob, John S., et al, Houston-Area Freshwater Wetland Loss, 1992-2010 (2014). *See also*,
 Narayan, et al., "The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern
 27 USA" 7 *Scientific Reports*, art. 9463 (2017), *cited in* AR 4941, at 13.

28 ⁸⁷Comments of Ducks Unlimited (April 12, 2019) (Comments of DU) (AR 5440) at 31 *citing, inter*
alia, Kurz et al. 2007. *An evaluation of basinwide, distributed storage in the Red River Basin: The*
Waffle Concept. Energy & Environmental Research Center.

1 without considering Amici reliance interests is arbitrary, capricious, and contrary to law in violation
2 of the APA. Amici urge the Court to grant summary judgment to Plaintiffs and vacate the 2020 Rule.
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5 *[SIGNATURE PAGE FOLLOWS]*
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1 Dated: February 17, 2021

Respectfully Submitted,

2
3 /s/ Janice L. Goldman-Carter

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CERTIFICATE OF SERVICE

I hereby certify that on February 17, 2021, I caused the AMICUS CURIAE BRIEF OF TROUT UNLIMITED ET AL IN SUPPORT OF PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT, to be electronically filed with the Clerk using the CM/ECF system, which I understand to have caused service of the filing to all counsel of record.

Dated: February 17, 2021

Respectfully submitted,

/s/ Melissa A. Samet

Melissa A. Samet